

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of the existing traffic control signal at the intersection of MD 24 at MacPhail Road in Harford County, Maryland. MD 24 is considered to run in an east/ west direction.

II. INTERSECTION OPERATION

The intersection currently operates in a NEMA six (6) phase, full-traffic-actuated mode. There are exclusive/permissive left turn phases for both the east and westbound movements of MD 24. The MD 24 through movements operate concurrently with an actuated pedestrian phase across the south leg of the intersection. The MacPhail Road through movements operate concurrently with an actuated pedestrian phase across the west leg of the intersection.

The existing cabinet/controller, phasing, and loop detector amplifiers will be utilized.

CONTACT LIST

The contact persons for District #4 are as follows:

Mr. David J. Malkowski
District Engineer
410-321-8210

Mr. Randall Scott
Assistant District Engineer - Traffic
410-321-8210

Mr. Joseph McMahon
Assistant District Engineer - Utility
410-321-8210

Mr. Dave Ramsey
Assistant District Engineer - Maintenance
410-321-8210

Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

EQUIPMENT LIST

A. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
1	EA	818	10 ft. steel pedestal pole with break away transformer base [Note: four 1 in. x 40 in anchor bolts].
1	EA	814	12 in., one way, two section (symbolic DW,WK) adjustable pedestrian signal head with post top mounting hardware and cut-away visors.
1	EA	813	30 in. x 36 in. R 3-5(L) sign with span wire mounting hardware.
1	EA	813	36 in. x 36 in. x 36 in. R 1-2 sign for ground mounting hardware
1	EA	813	18 in. x 18 in. W 16-1 sign for ground mounting hardware.
1	EA	---	Pedestrian pushbutton assembly.

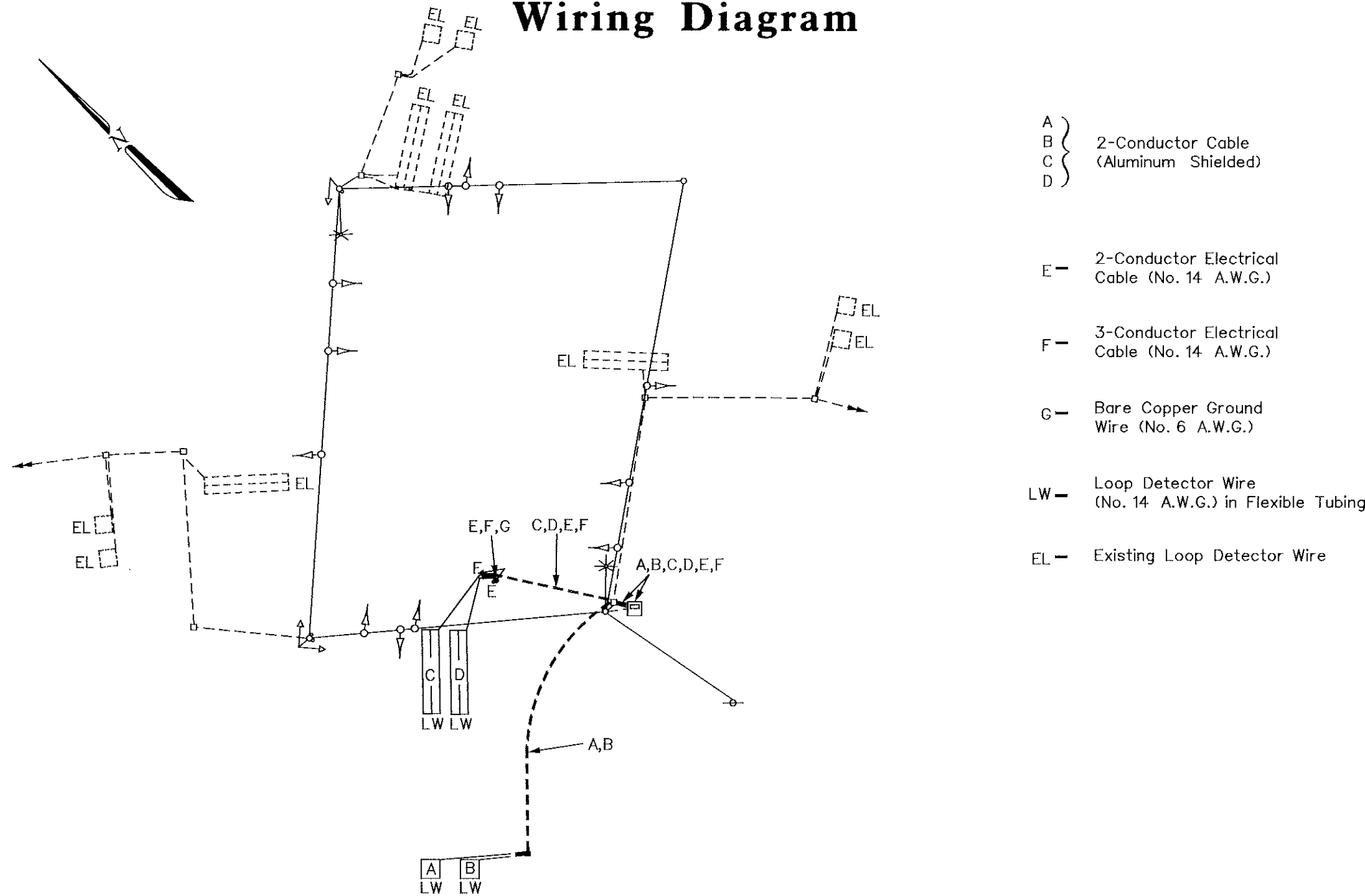
B. Equipment to be furnished and installed by the Contractor.
All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
2	EA	811	Handhole.
350	LF	815	Sawcut for signal loop detector.
1265	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
75	LF	810	2 conductor electrical cable (No. 14 A.W.G.).
400	LF	810	2 conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
75	LF	810	3 conductor electrical cable (No. 14 A.W.G.).
10	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
30	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
130	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
50	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
25	LF	550	24 in. wide HAPPTPM - white for stop line.
160	LF	550	12 in. wide HAPPTPM - white for crosswalk.
2	EA	550	Pavement marking symbol - "ONLY" - HAPPTPM.
2	EA	550	Pavement marking symbol - "Left Arrow" - HAPPTPM.
2	EA	550	Pavement marking symbol - "Right arrow" - HAPPTPM.
1	EA	804	Ground rod - 3/4 in. diameter x 10 ft. length.
0.7	CY	801	Concrete foundation for traffic signal equipment.
15.5	LF	812	4 in. x 4 in. wood sign support.
1	EA	---	Relocate existing sign - span wire mount.
175	LF	---	Remove existing pavement marking by grinding.
Lump Sum	LS	---	Remove existing traffic signal equipment.
Lump Sum	LS	---	As-built for S.H.A [on CADD].

Phase Chart

	1	2	3	4	5	6	7	8	9	10	11	12	13,14	15,16
Phase 1 & 5	R ←G→	R ←G→	R	R ←G→	R ←G→	R	R	R	R	R	R	R	DW	DW
1 & 5 Change to Phase 1 & 6 or Phase 2 & 5 or Phase 2 & 6														
Phase 1 & 6	G ←G→	G ←G→	G	R	R	R	R	R	R	R	R	R	DW	DW
1 Change	G ←Y→	G ←Y→	G	R	R	R	R	R	R	R	R	R	DW	DW
Phase 2 & 5	R	R	R	←G→	←G→	G	R	R	R	R	R	R	DW	DW
5 Change	R	R	R	←G→	←G→	G	R	R	R	R	R	R	DW	DW
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	DK	DW
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW
Phase 2 & Alt. 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	DW
Ped Clearance	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	DW
2 & Alt. 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW
Phase 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW
4 & 8 Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW
Phase Alt 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	WK
Ped Clearance	R	R	R	R	R	R	G	G	G	G	G	G	DW	FL/DW
Alt 4 & 8 Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

Wiring Diagram



MDOT – STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information)

MD 24 at MacPhail Road

DATE: October 28, 1998

LOG MILE • 12002408.53

DRAWN BY: J.E.S./FH

F.A.P. NO. N/A

CHK. BY:

S.H.A. NO. BW996M82

SCALE: N/A

COUNTY: HARFORD

PLAN SHEET NO.:

SHEET NO.

3333B-GI

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